*FIG. 2*

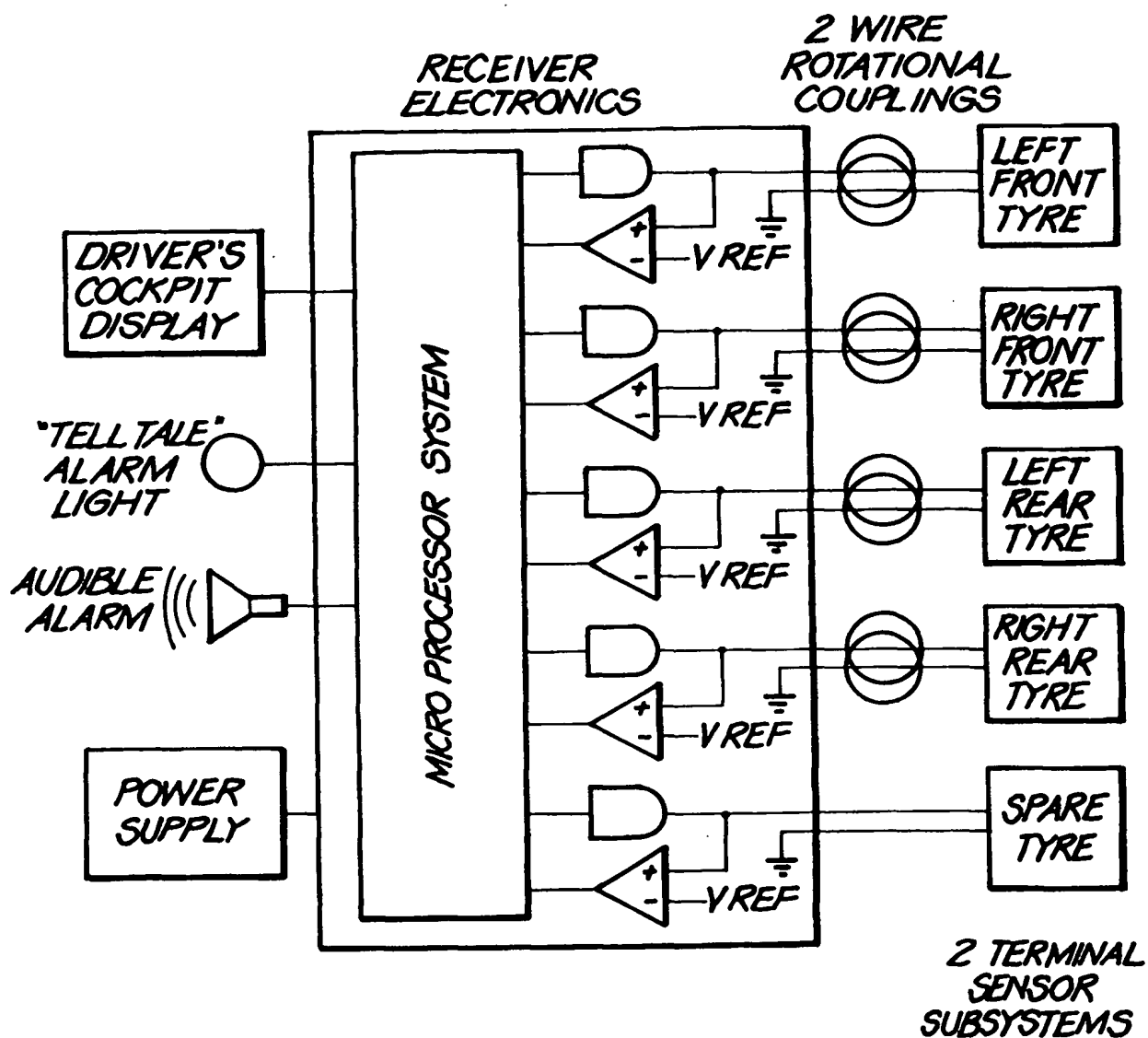
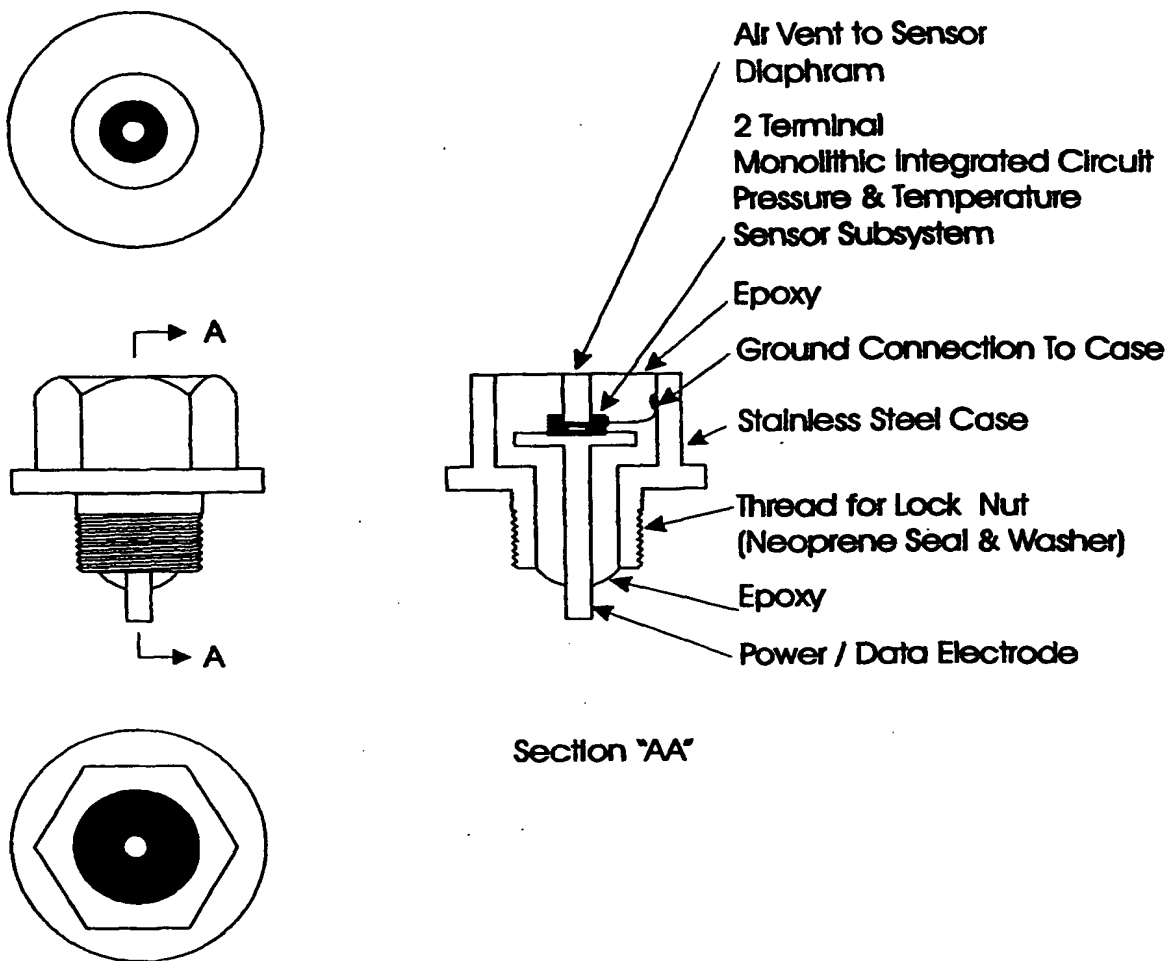
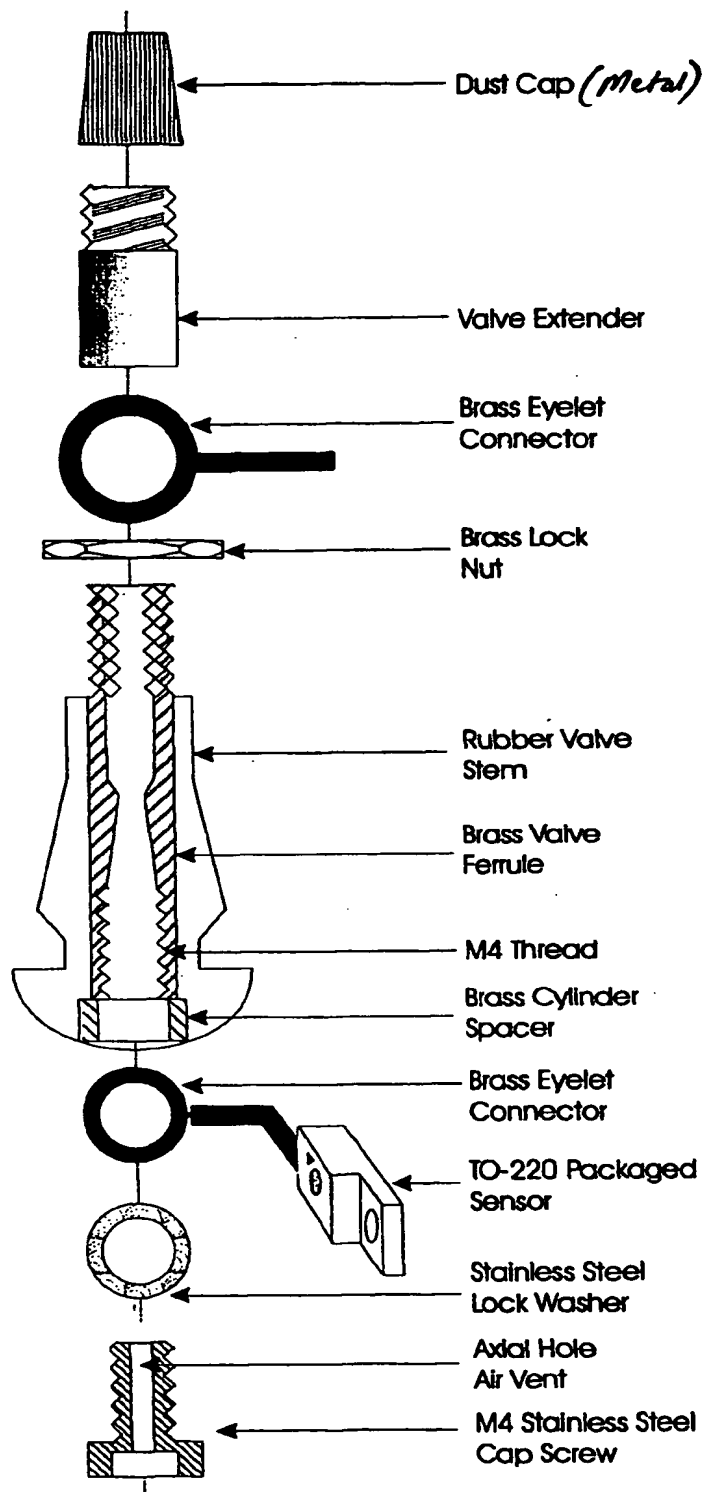


FIG. 3

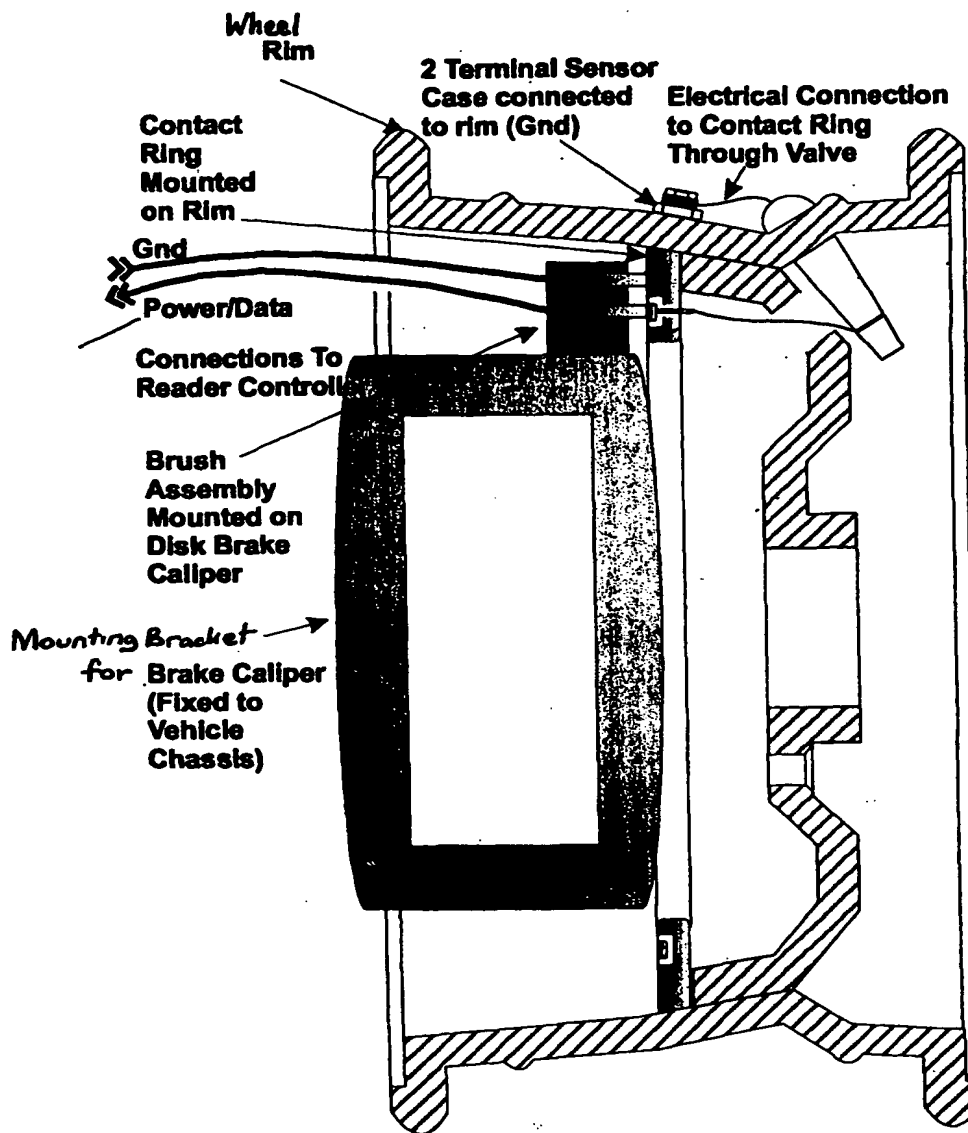


## 2 Terminal Sensor Packaging

*Fig. 4*



**Fig. 5** Tyre Valve Insulated Electrode  
Used To Connect Sensor To  
External Face Of Wheel Rim

*Fig. 6*

**System Implementation showing  
TPMS Enabled Wheel Rim and  
TPMS Enabled Disk Brake Caliper**

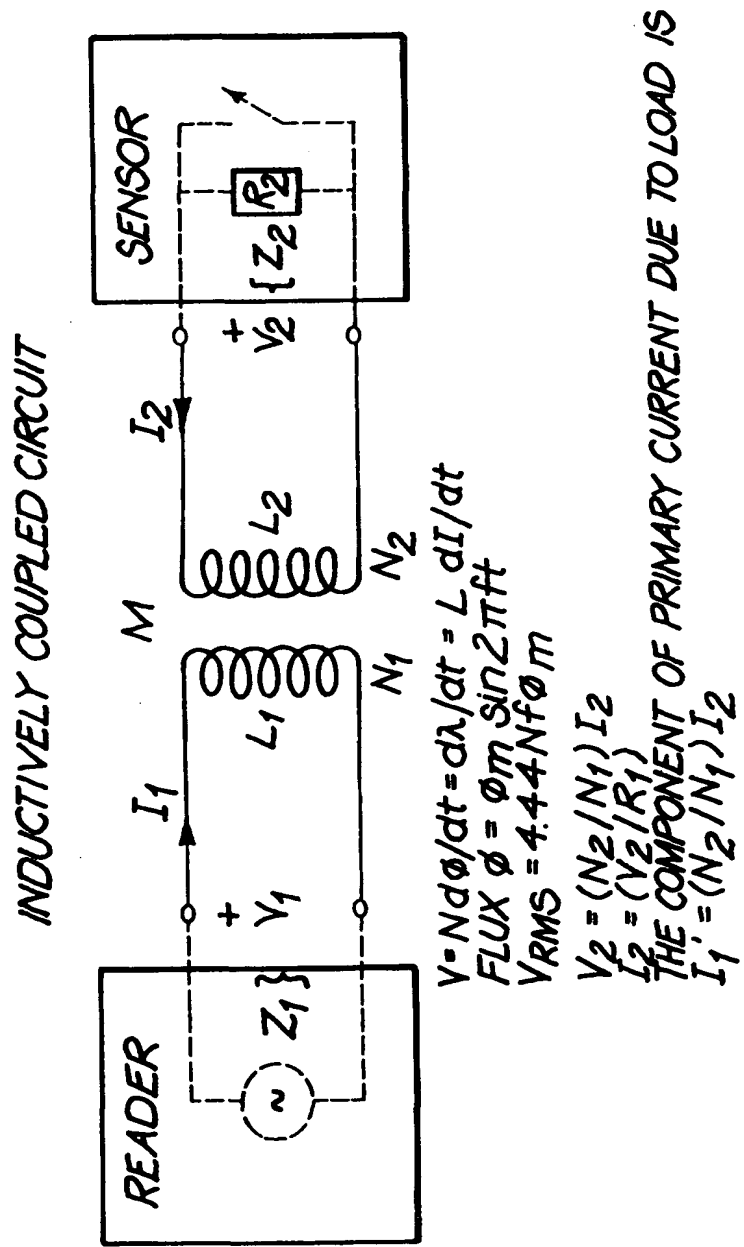
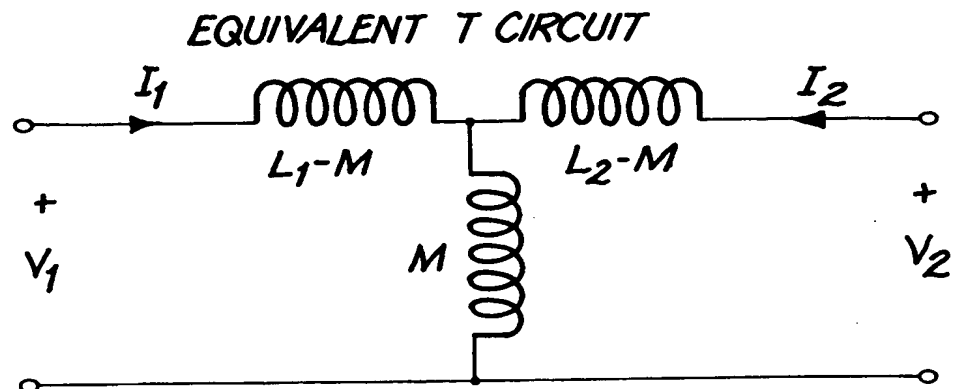


FIG. 7



FOR SINUSOIDS, VOLTAGE  $V_{12}$  COUPLED INTO THE INPUT BY A CURRENT  $I_2$  IS  $V_{12} = j\omega M_{12} I_2$

WHERE  $Z_{12} = j\omega M_{12} =$  MUTUAL IMPEDANCE

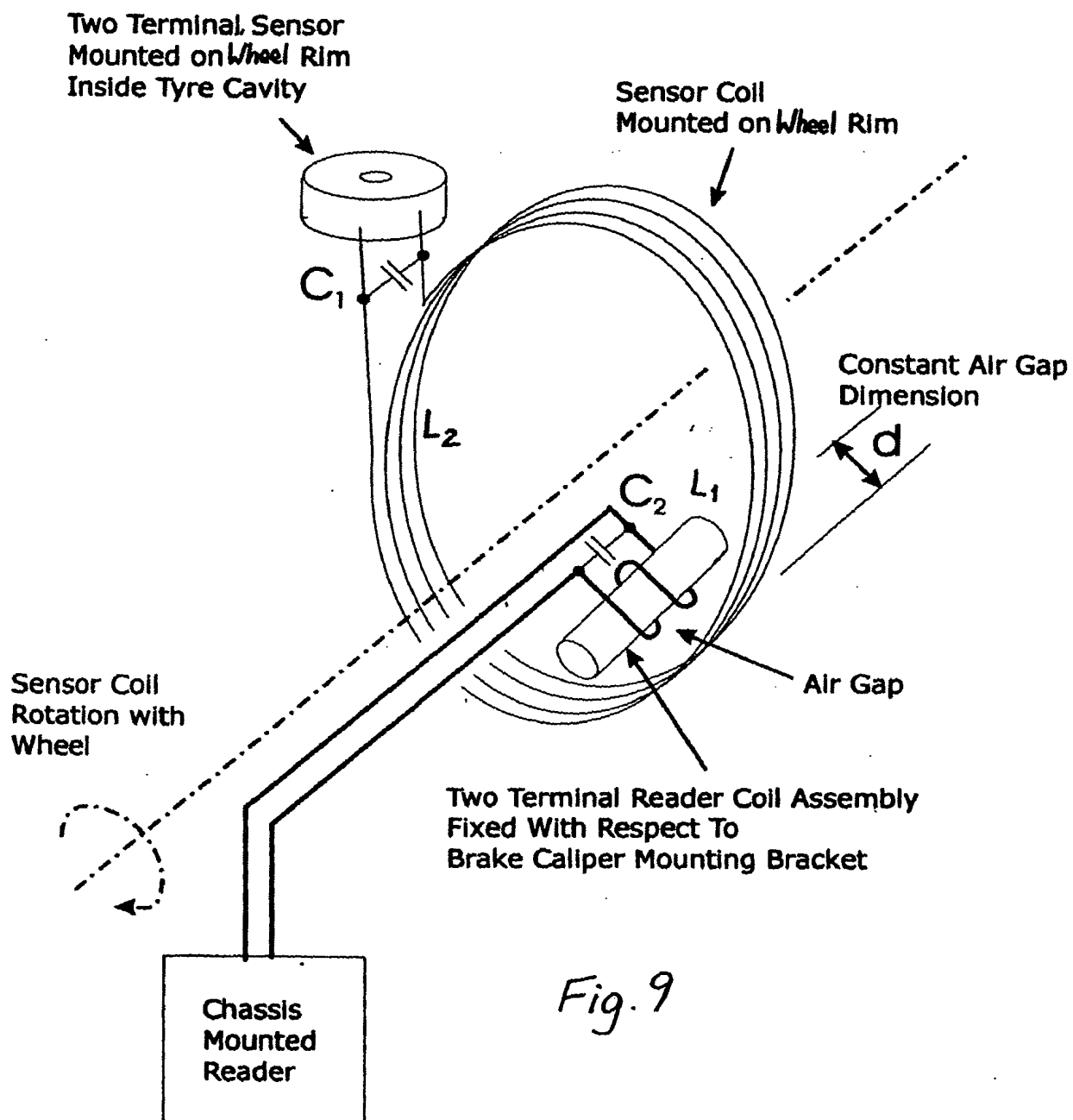
IF  $Z_{12} = Z_{21}$  OR  $M_{12} = M_{21} = M$  USING RECIPROCITY FOR A BILATERAL NETWORK,

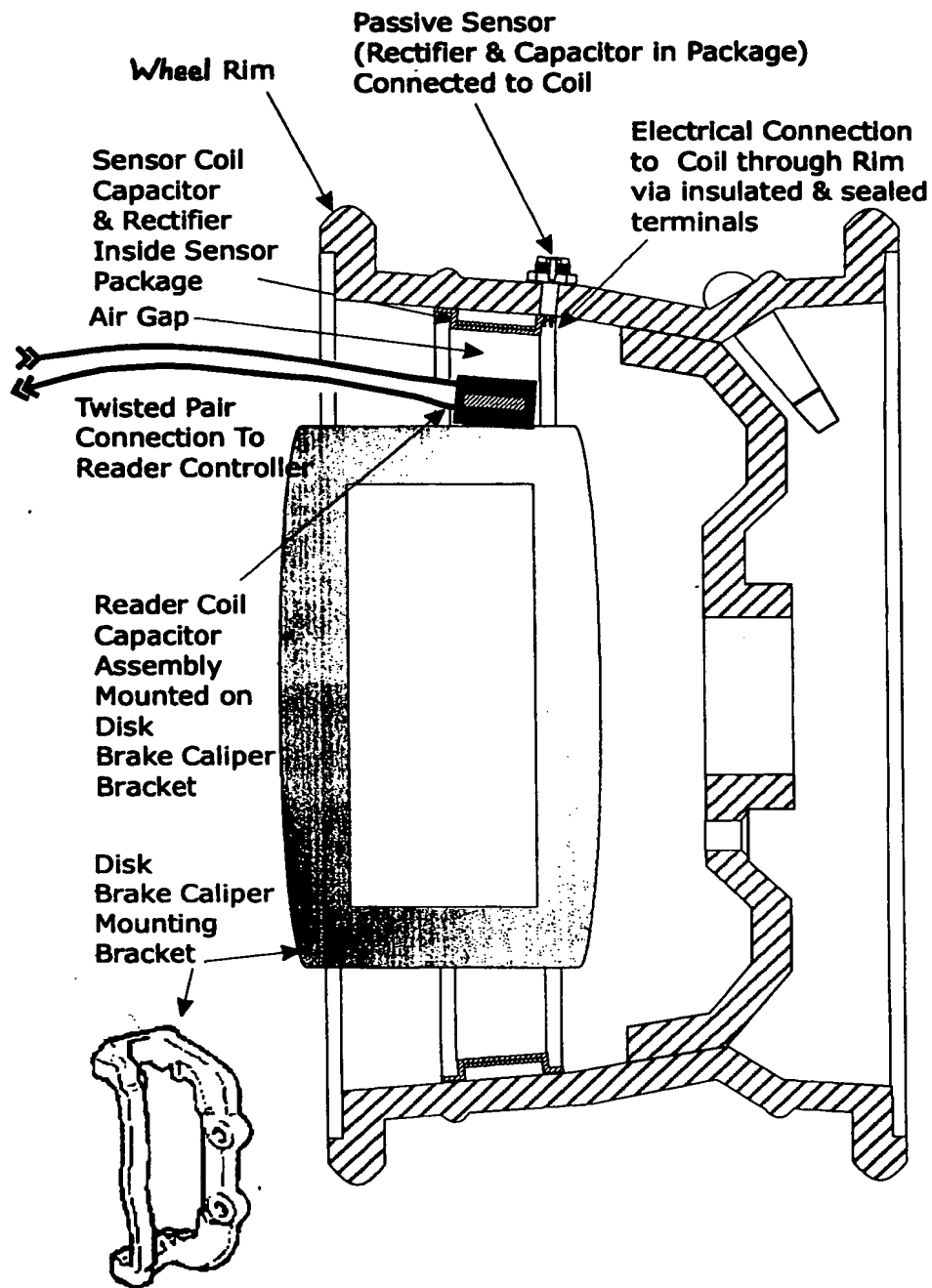
THEN  $V_1 = j\omega L_1 I_1 + j\omega M I_2 = Z_{11} I_1 + Z_{12} I_2$

AND  $V_2 = j\omega M I_1 + j\omega L_2 I_2 = Z_{21} I_1 + Z_{22} I_2$

**FIG. 8**

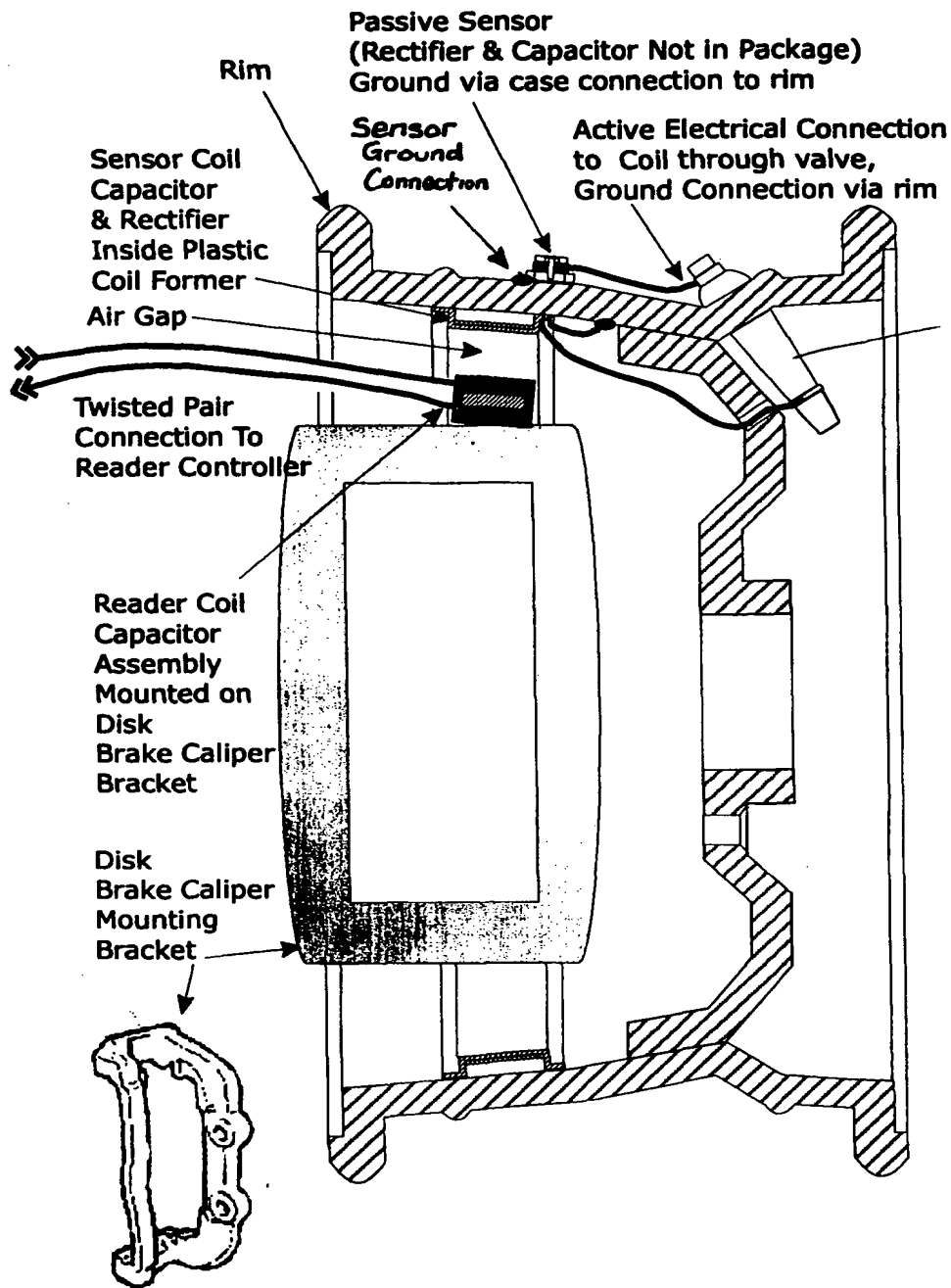






Non Contact System Showing  
TPMS Enabled Steel Wheel Rim and  
TPMS Enabled Disk Brake Caliper  
Mounting Bracket

*Fig. 10*



Non Contact System Showing  
TPMS Enabled Steel Wheel Rim and  
TPMS Enabled Disk Brake Caliper  
Mounting Bracket

*Fig. 11*

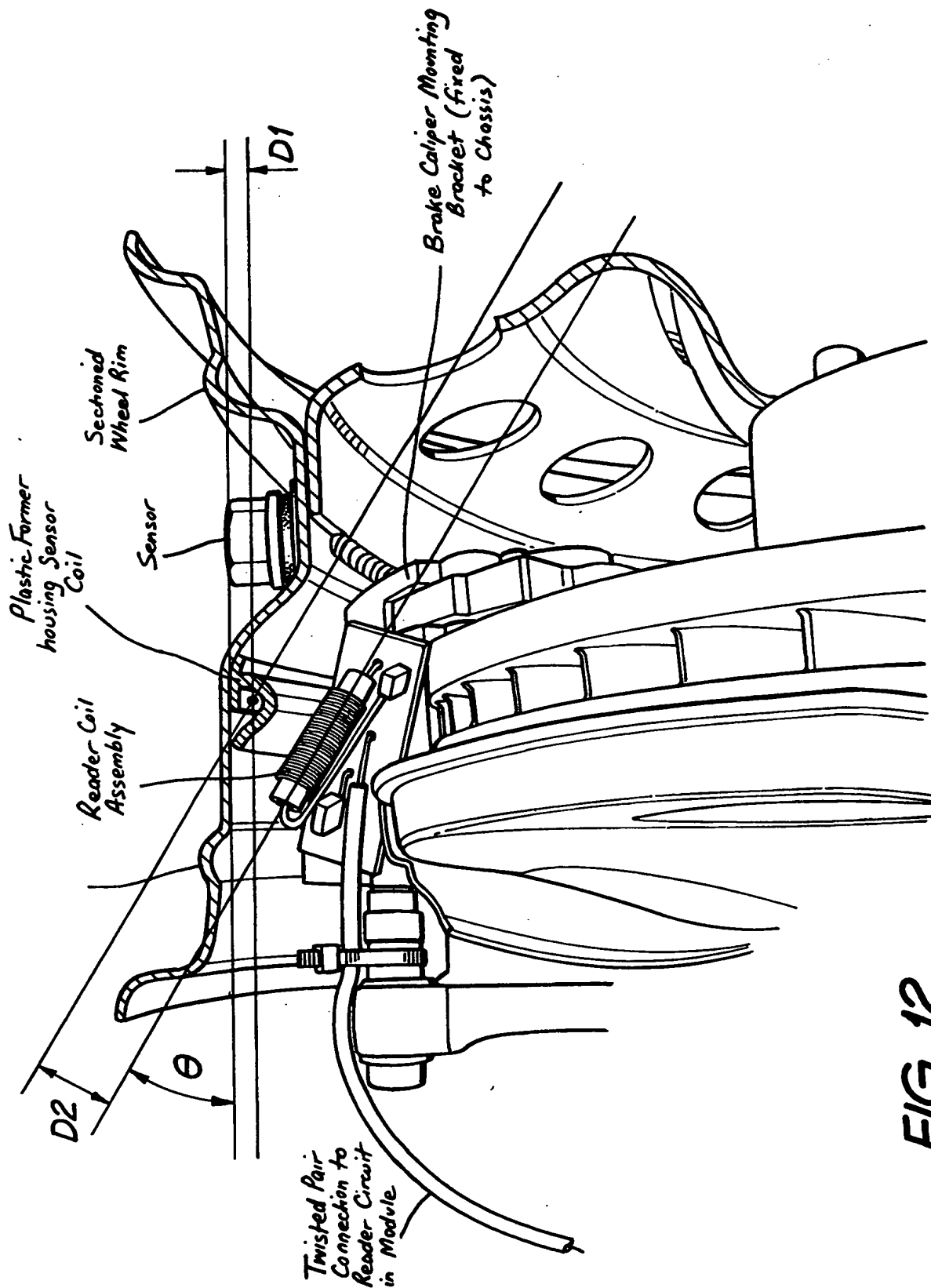


FIG. 12

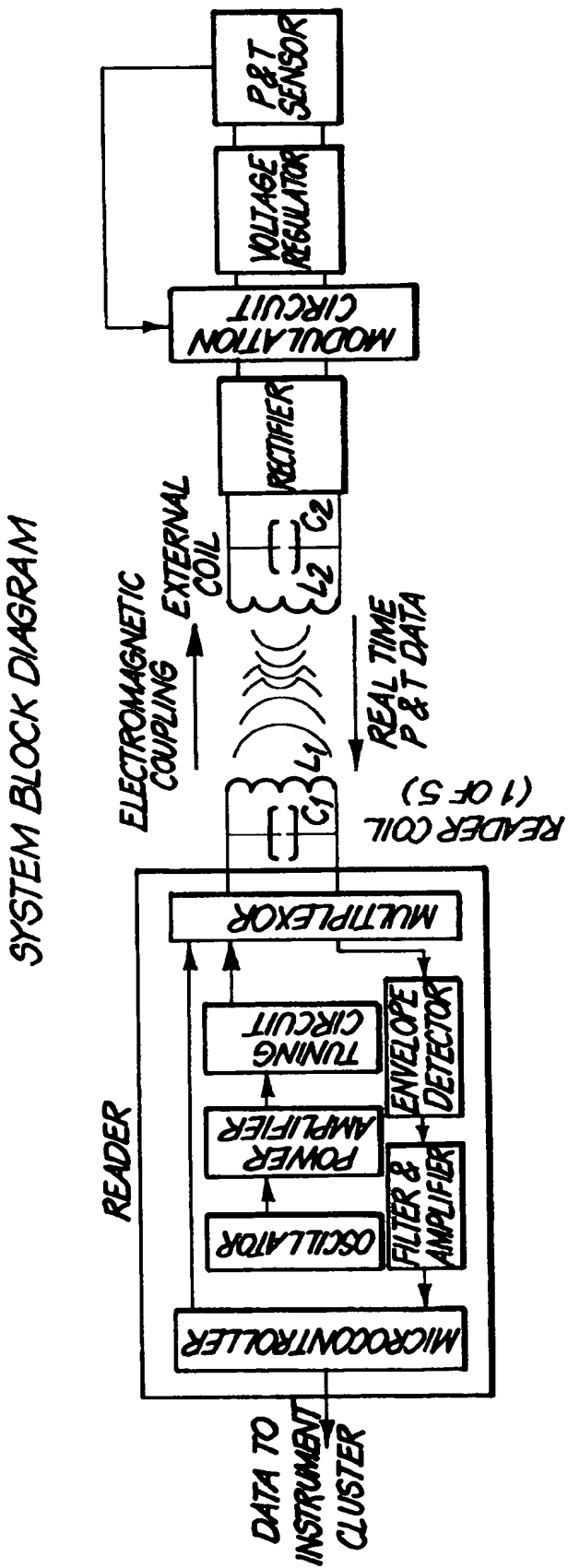


FIG. 13

EXTERNAL COIL & CAPACITOR -  
ALL OTHER COMPONENTS IN SENSOR PACKAGE

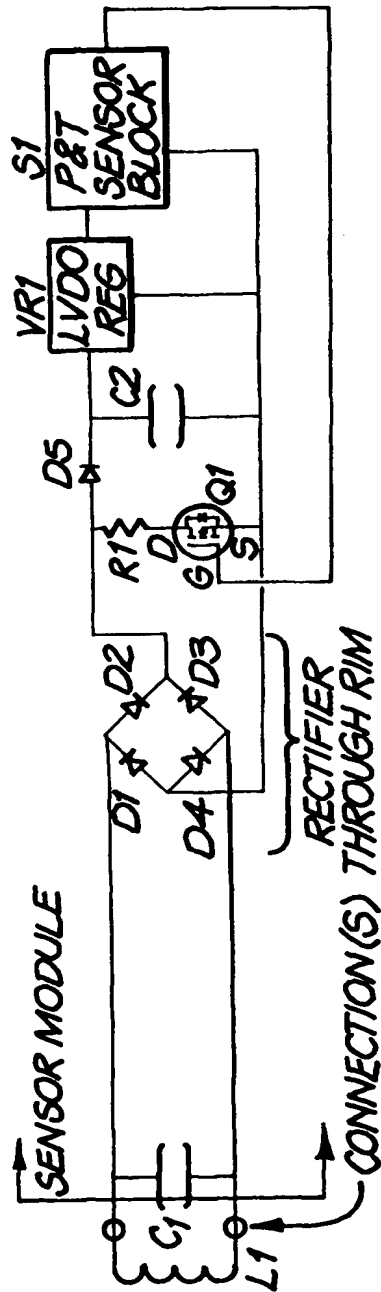


FIG. 14

EXTERNAL COIL, CAPACITOR & BRIDGE RECTIFIER

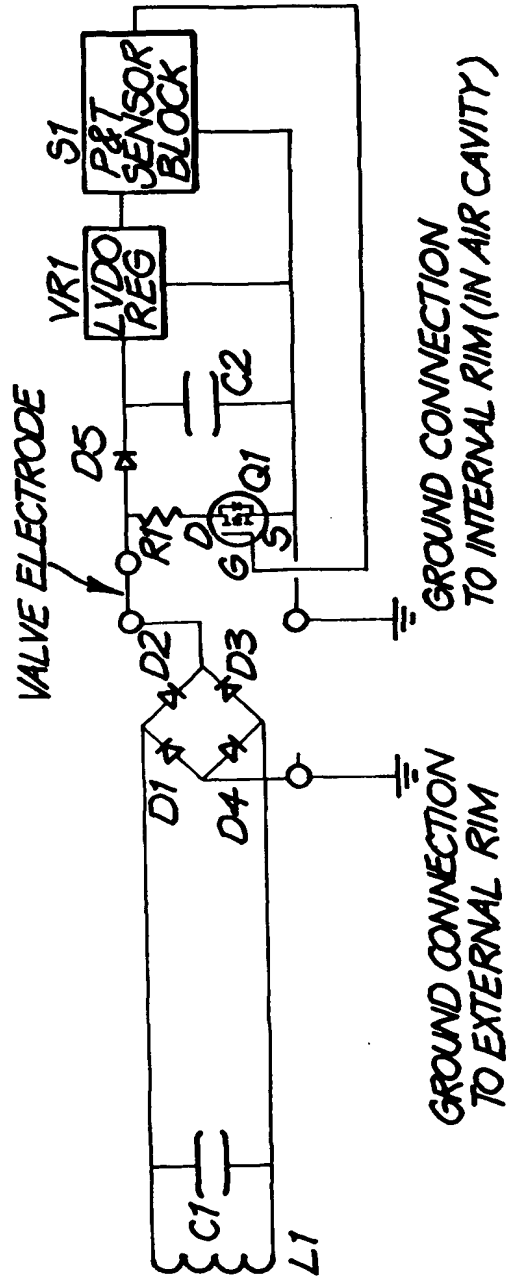
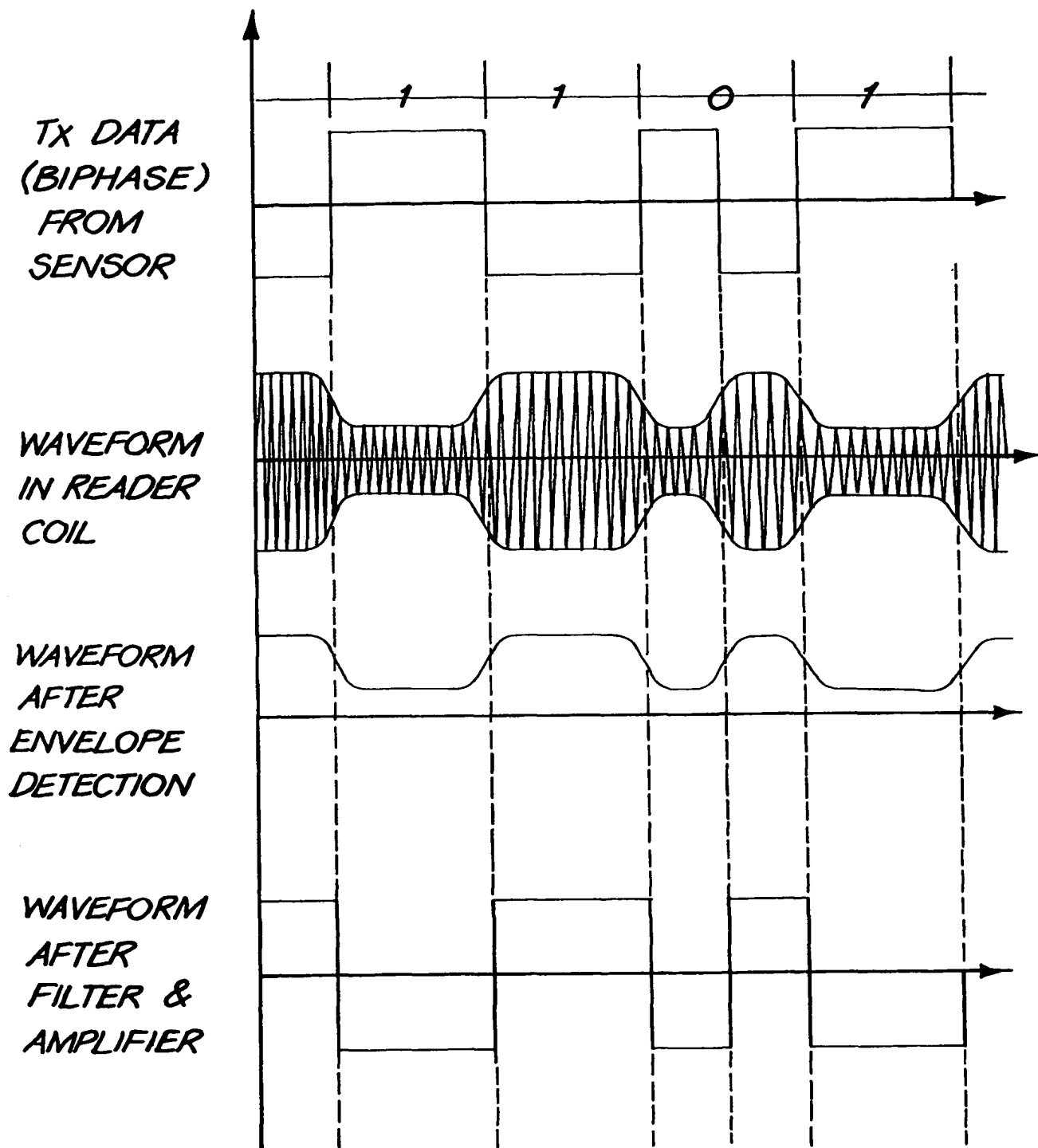
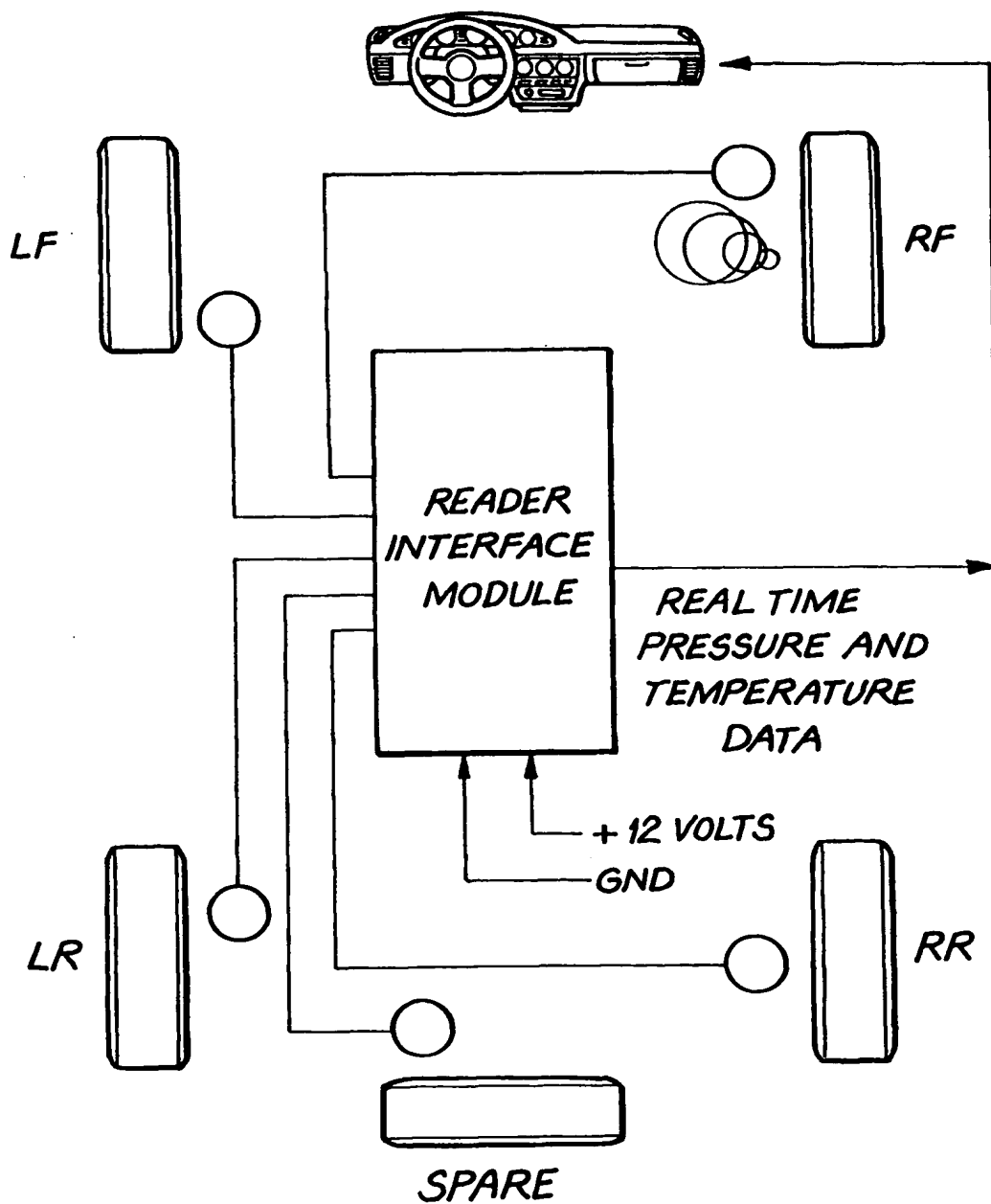
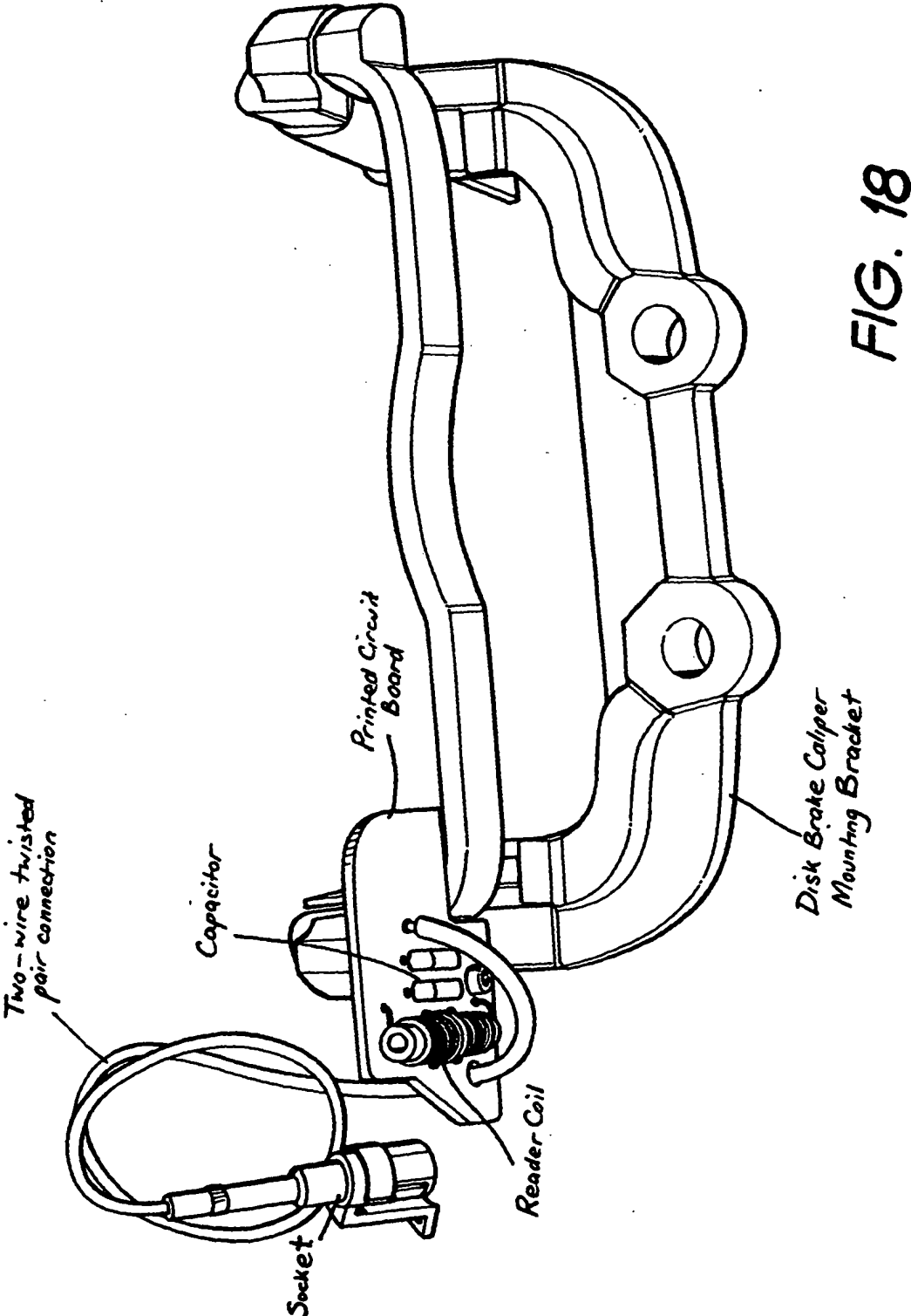


FIG. 15

*ELECTROMAGNETIC COUPLING SIGNAL WAVEFORMS**FIG. 16*

**FIG. 17**





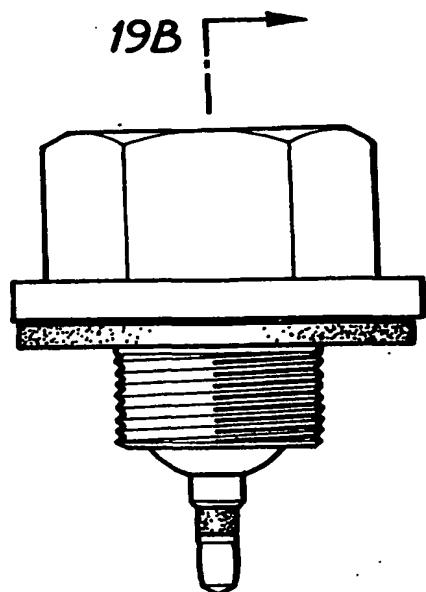


FIG. 19A

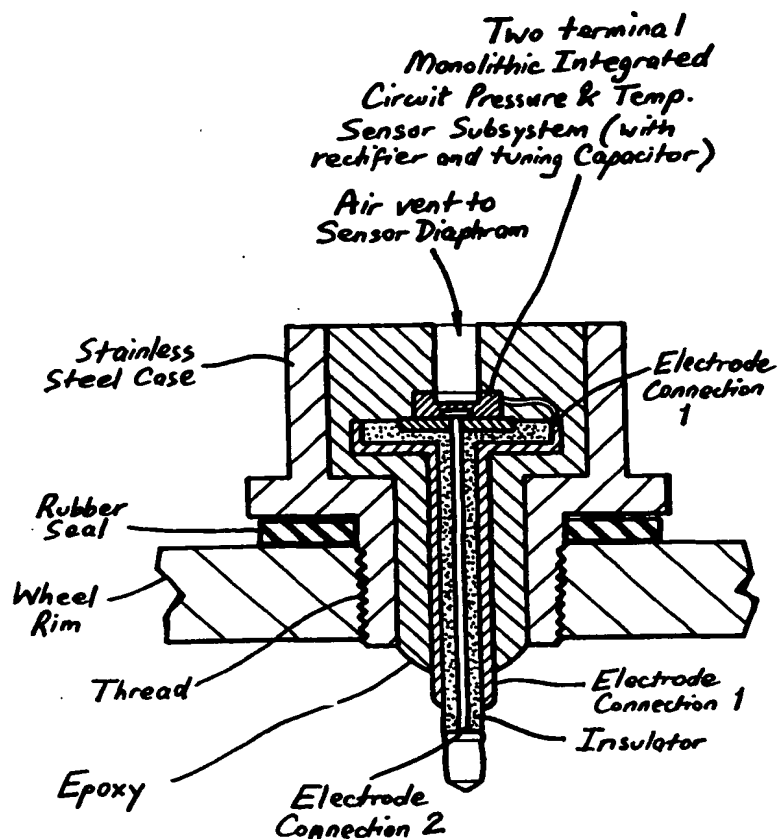


FIG. 19B

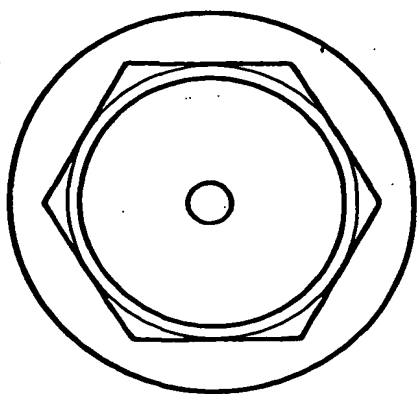


FIG. 19C

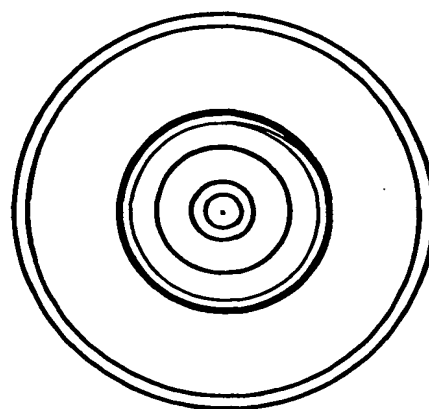


FIG. 19D